

Please amend the claims as follows (this listing of claims replaces all prior listings):

1-23. (Cancelled).

24. (Currently amended) An apparatus comprising:

~~a chamber;~~

~~a support located within the chamber;~~

a quartz plate supported within a chamber ~~by the support~~;

a high frequency energy source;

a first ~~gas supply providing a first gas, the first~~ etchant gas comprising  $C_xF_y$  molecules, x and y being integers;

a second etchant gas comprising  $SpFq$  molecules, p and q being integers

~~a first an inlet structure~~ for introducing the first and second etchant gases ~~gas~~ into the chamber to form a first and second plasma gas ~~gases~~ when energized by the high frequency energy source, the first and second plasma gas being used to etch the quartz plate.;

~~a second gas supply providing a second gas, the second etchant gas comprising  $SpFq$  molecules, p and q being integers; and~~

~~a second inlet for introducing the second gas into the chamber to form a second plasma gas when energized by the high frequency energy source;~~

~~wherein the first and second plasma gas are used to etch the quartz plate.~~

25. (Original) The apparatus of claim 24, further comprising a flow controller for controlling the amount of the first and second etchant gases entering the chamber.

26. (Previously Presented) The apparatus of claim 24, wherein the first gas comprises carbon fluoride and the second gas comprises sulfur fluoride.

27. (New) An etching system, comprising:  
a chamber that includes a substrate having a peripheral portion and a central portion, the peripheral portion being at least 50 mm from the central portion;  
a first plasma in the chamber having more negative ions than electrons; and  
a second plasma in the chamber having more electrons than negative ions, the amounts of the first and second plasmas having a specified ratio so that a combination of the first and second plasmas etch a substrate in the chamber in which the rate of etching at a peripheral portion of the substrate is within 1% of the rate of etching at a central portion of the substrate.

28. (New) The etching system of claim 27 in which the first plasma is generated from  $C_xF_y$ , x and y being integers, and the second plasma is generated from at least one of sulfur fluoride, silicon fluoride, and phosphorus fluoride.

29. (New) The etching system of claim 27 in which the first plasma comprises positive ions having a distribution that decreases radially from a central region of the chamber towards a peripheral region of the chamber.

30. (New) The etching system of claim 27 in which the second plasma comprises positive ions, a distribution of positive ions in the second plasma increases radially from a central region of the chamber towards a peripheral region of the chamber.

31. (New) The etching system of claim 30 in which the first plasma and the second plasma have a specified ratio so that a sum of the positive ions in the first plasma and the positive ions in the second plasma is substantially uniform across a substantial portion of the substrate.

32. (New) A method comprising:  
providing a substrate;  
providing a gas that includes a first component and a second component, at least one of the first and second components comprising  $C_xF_y$  molecules, x and y being integers;  
generating a plasma based on the gas to etch the substrate, the first and second components of the gas selected so that varying the ratio of the first component to the second component varies the rate of etching at a peripheral portion of the substrate relative to a central portion of the substrate; and  
controlling the rate of etching at the peripheral and central portions by selecting the amount of the first and second components in the gas so that the rate of etching near the peripheral portion is substantially equal to the rate of etching near the central portion.
33. (New) The method of claim 32 in which the first and second components are selected to generate different ratios of negative ions to electrons within the plasma.
34. (New) The method of claim 32 in which the second component comprises at least one of silicon fluoride, phosphorous fluoride, and sulfur fluoride.
35. (New) The method of claim 32 in which the volume ratio of the first component to the second component is between about 100:1 to 5:1.
36. (New) The method of claim 32 in which the volume ratio of the first component to the second component is between about 50:1 to 10:1.
37. (New) The method of claim 32 in which the volume ratio of the first component to the second component is between about 25:1 to 15:1.

38. (New) The method of claim 32 in which the substrate material comprises a semiconductor wafer.

39. (New) The method of claim 32 in which the substrate material comprises a dielectric material.

40. (New) The method of claim 32, further comprising controlling the rate of etching at the peripheral portion to be within about 1% of the rate of etching at the central portion, the peripheral portion being at least about 50 mm from the central portion.

41. (New) The method of claim 24, further comprising a second high frequency energy source to provide a high frequency energy to a support in the chamber that supports the quartz plate.